

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of Jan WEBER

Examiner: Erma Cameron

Serial No.: 10/790,115

Art Unit: 1762

Filed: March 2, 2004

Confirmation No.: 2884

For: **APPARATUS AND METHOD FOR COATING OBJECTS USING AN  
OPTICAL SYSTEM**

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**ARGUMENTS IN SUPPORT OF PRE-APPEAL REQUEST FOR REVIEW**

Applicant submits the following arguments in support of the Pre-Appeal Brief Request for Review filed herewith.

**I. Claim Rejections**

Claims 5 and 27-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2003/0047688 to Faris et al. (hereafter “the Faris publication”). Claims 5 and 27 are independent claims.

**II. Independent Claim 5 is Patentable Over the Faris Publication**

The Applicant respectfully submits that the Faris publication fails to disclose or suggest the elements of independent claim 5. Claim 5 recites a first plurality of droplets and second plurality of droplets where a droplet from the second plurality of droplets has a size different from a size of a droplet from the first plurality of droplets and where the second plurality of droplets is disposed on a medical device after modifying the direction of the second plurality of droplets such that the first plurality of droplets and the second plurality of droplets form interleaving zones on the medical device. One example of interleaving zones, as described in the

Applicant's specification, includes coating the surface of the medical device with periodic variation between two coatings. The Faris publication fails to teach or suggest these recitations.

The Examiner's characterization of the Faris publication ignores the actual recitations of claim 5. In particular, the Examiner opines that "Faris teaches optically moving droplets, either over a surface [0020]–[0022] or while levitated [0073], depositing droplets at more than one site (claim 83), and droplet splitting and droplet fusion [0109], and thus meets the limitations of claim 5." Each cited portion of the Faris publication fails to teach or suggest the elements of independent claim 5. Paragraphs [0020]–[0022] of the Faris publication merely disclose "controllably moving a droplet of a selected fluid across a surface of a solid substrate" from a "first site" to a "second site." Similarly, claim 83 of the Faris publication discloses depositing a droplet of a selected fluid on a first site of a fluid-transporting surface of a solid substrate and optically moving the same droplet to a second site on the fluid-transporting surface. Paragraph [0073] of the Faris publication describes levitating droplets away from a fluid-transporting surface for motion and paragraph [0109] describes splitting and fusing droplets. These portions of the Faris publication cited by the Examiner disclose that a droplet or droplets can be moved from one location to another or fused and split, but these portions fail to disclose or suggest moving droplets of different sizes and depositing the different-sized droplets to form interleaving zones on a medical device. In fact, the Faris publication is entirely silent with respect to modifying the direction of a first plurality of droplets and a second plurality of droplets to form interleaving zones on a medical device. The Faris publication, in contrast, is directed towards moving droplets over a fluid transporting surface to ultimately deposit the droplets in reagent reservoirs or reactant wells.

When rejecting claim 5 in the Advisory Action, the Examiner noted that "[t]he examiner cannot find where in the specification 'periodic variation' is described." The Applicant's specification, however, discloses multiple examples of "interleaving zones" such as, for example, periodic variation of two coatings formed by different-sized droplets. For example, FIGS. 6, 9, and 11 and their respective accompanying descriptions explicitly teach various forms of interleaving zones. FIG. 6 shows a cross-sectional view of an object and its periodically varying coatings. The description accompanying FIG. 6 in paragraph [0043] describes "coating the surface of [the] object with a periodic[] variation between two coatings." FIG. 9 illustrates

an example of the distribution of two different types of droplets disposed in a comb-like structure on the surface of an object in a coating. As shown below, FIG. 11 illustrates distributions of droplet coatings 319 and 329 that are deposited on a surface of an object in an interleaved fashion. A droplet type associated with coating 319 can be different than a droplet type associated with coating 329 (e.g., having a different characteristic such as droplet size). In addition, it should be noted that the term “interleaving zones” appeared in the claims as originally filed.

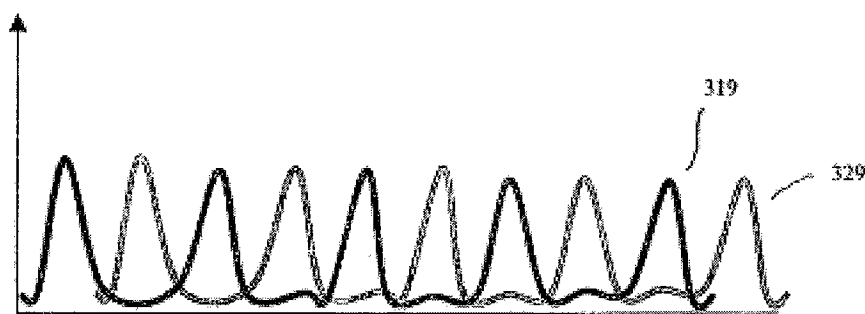


FIG. 11

The Applicant notes that any such putative requirement for explicit duplication of claim terms within the written description is utterly without legal basis, whether under the guise of 35 U.S.C. § 103 or § 112. It is axiomatic that an “applicant may rely not only on the specification and drawing as filed but also on the original claims if their content justifies it” (emphasis added). M.P.E.P. 608.04. In fact, an “applicant is not limited to the nomenclature used in the application as filed” (emphasis added). M.P.E.P. 608.01(o). The Applicant explicitly reserves the right to pursue claim amendments using terms possibly differing from the exact language of the written description as filed, whether in this application or later-filed continuation applications.

For at least the reasons stated above, independent claim 5 is allowable over the Faris publication. Thus, the Applicant respectfully requests that the rejection under 35 U.S.C. § 103(a) be withdrawn and the claim allowed.

**II. Independent Claim 27, and Claims Dependent Therefrom, are Patentable Over the Faris Publication**

The Applicant respectfully submits that the rejection of independent claim 27 is not supported because the Faris publication does not include all of the elements of claim 27. Claim 27 recites “modifying at least one of a direction, a velocity or an acceleration of a droplet using an optical field” where the modifying is “based on a characteristic indicating that the droplet is unacceptable for disposing on a surface of a medical device.” Independent claim 27 further recites “disposing, after the modifying, the droplet on a waste surface different from and proximate to the surface of the medical device.” The Faris publication fails to disclose or suggest these recitations.

Again, the Examiner’s characterization of the Faris publication ignores the actual recitations of the claim. The Examiner opines that “Faris discloses disposing droplets to more than one location in paragraphs [0069]–[0071],” and that “any of the locations could be deemed to be a ‘waste surface.’” This interpretation, however, reads into the Faris publication disclosure that is entirely missing. It is respectfully submitted that the Faris publication is entirely silent with respect to a waste surface where a droplet can be disposed: the Faris publication only discloses disposing all droplets in either the reagent reservoirs or reactant wells for the intended purpose of combinatorial chemistry. To arbitrarily assign such reservoirs and wells as a “waste surface” goes too far.

Furthermore, the Faris publication is entirely silent with respect to a waste surface that is “different from and proximate to a medical device,” as recited in claim 27. The Faris publication discloses moving droplets on or around a common fluid-transporting surface, but does not disclose or suggest a waste surface that is different from and proximate to a medical device. In fact, the Faris publication discloses a cover plate 120 to envelope the fluid-transporting surface 104: this teaches away from any possible waste surface different from and proximate to a medical device.

Finally, the Examiner fails to address the recitation in independent claim 27 that the modifying of a direction, a velocity and/or an acceleration of a droplet is based on a characteristic indicating that the droplet is unacceptable for disposing on a surface of a medical

device. Again, the Faris publication is entirely silent with respect to a droplet being unacceptable for disposing.

Accordingly, independent claim 27, and claims 28-33 dependent therefrom, are allowable over the Faris publication. Thus, the Applicant respectfully requests that the rejection under 35 U.S.C. § 103(a) be withdrawn and the claims allowed.

### CONCLUSION

For the foregoing reasons, the Applicant respectfully requests the panel of Examiners review the final office action and advisory action and issue a decision that the pending claims are allowable.


The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 50-1283.

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Respectfully submitted,  
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